B

What Is Claimed Is:
~~Patent Claims~~

1. A method for bidirectional data transmission via a two-wire line, digital data being modulated or demodulated for transmission or reception, for example by means of discrete multitone modulation (DMT), and the data to be transmitted and the data to be received being separated, for example by frequency division multiplex operation (FDM) or echo cancelling (EC), **wherein** the data to be transmitted and the data to be received are separated by time division multiplex operation (TDM), the associated multiplex time frame being subdivided into a predeterminable number N of time slots, and of these a number K of time slots being assigned exclusively to one transmission direction, for example transmit, and the remaining number (N-K) of time slots being assigned exclusively to the other transmission direction, for example receive.

Sub B2

2. The method as claimed in claim 1, **wherein** N is equal to 30 and K is equal to 1.

3. The method as claimed in claim 1 ~~or 2,~~ **wherein** a predeterminable number of time slots for ARQ (Automatic Repeat Request) transmission repeats are provided on average over time in the multiplex time frame of the data transmission.

4. The method as claimed in claim 1, ~~2 or 3,~~ **wherein** in the event of erroneous transmission, the data are retransmitted after having been modified, for example by means of a computing algorithm.

Sub B3

5. The method as claimed in claim 4, **wherein** the data are modified by logic inversion.

Sub B4

6. The method as claimed in ~~claims 1 to 5,~~ Claim 1 **wherein** the switching frequency of an interference source, for example a power supply unit, is synchronized with one of the carrier frequencies of the discrete multitone modulation.

7. The method as claimed in ~~claims 1 to 6~~ claim 1, data being transmitted via two or more two-wire lines which are routed at least partially at crosstalk distance, **wherein** the time division multiplex operation (TDM) is carried out synchronously on all of the two-wire lines, with the result that either transmission or reception is performed simultaneously on all of the two-wire lines.

08981519.031798